

EFFECT OF DISPENSER LOCATION ON TAKING FREE CONDOMS IN
AN OUTPATIENT COCAINE ABUSE TREATMENT CLINICDanielle R. Carrigan, Kimberly C. Kirby, and Douglas B. Marlowe
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Crack cocaine use increases risky sexual behavior and HIV exposure; therefore, safe sexual practices should be encouraged during cocaine addiction treatment. Research indicates that placing condom dispensers in private restrooms increases taking free condoms. We investigated two other dispenser locations (a day room vs. counselors' offices) and found that substantially more condoms were taken when dispensers were in the day room. This is an important issue for public health facilities without private restrooms.

DESCRIPTORS: AIDS, cocaine, HIV, sexual behavior, condom taking

Crack cocaine use has been linked to increased high-risk sexual activities such as trading sex for money or drugs and sex with multiple partners. Few crack users report always using condoms to reduce the risk of contracting sexually transmitted diseases including HIV (Weatherby et al., 1992). Although counseling and education appear to increase condom use among adolescents (McCusker, Stoddard, Zapka, & Lewis, 1993), educational interventions have had little effect on sexual risk behaviors of drug users. Likewise, poster prompts increased taking of free condoms in gay bars but not in a drug abuse treatment program (Amass, Bickel, Higgins, Budney, & Foerg, 1993). Strategies for getting drug-abusing populations to obtain and use condoms need further development.

One strategy involves location of condom dispensers. Amass et al. (1993) examined the influence of dispenser location on the number of free condoms taken in a drug abuse treatment clinic and found that nearly four times more condoms were taken from the private restroom than from a public waiting area. They suggested that private locations increased condom taking. To further explore the influence of dispenser location on condom taking, we examined two other locations in an urban cocaine abuse treatment facility. Like many public health facilities, ours did not have a private restroom; it shared a public restroom with other programs and businesses in the same building. Placing the dispenser in the restroom was not an option, so we studied the effects of placing the dispenser in the day room waiting area versus in the counselors' offices, a location frequently used for condom distribution in drug abuse clinics.

METHOD: *Subjects.* The study was conducted at a medical-school-affiliated cocaine research and treatment clinic in an inner city. Participants were primarily crack cocaine users who were predominantly unemployed (88%) black (83%) males (68%) ranging in age from 19 to 58 years ($M = 32$ years). The program provided both outpatient and day treatment. All the adults who visited the treatment facility between April 18, 1994 and September 30, 1994 were included. This group was composed of clients who were active in treatment, subjects involved in the research aspects of the program, and significant others over the age of 18 who accompanied clients to the program.

Procedure. To discern the effects of dispenser location we used a reversal design, alternating the location of dispensers of free condoms between the day room and the counselors' offices. In the day room, 50 individually wrapped Lifestyles condoms were placed in each of two wall-mounted opaque dispensers clearly marked "CONDOMS." Dispensers were designed to allow clients to take a few condoms at a time, preventing a disproportionate number of condoms from being taken by one person; however, clients could take as many condoms as they wanted. One dispenser was placed at the doorway and the other on the back wall of the day room.

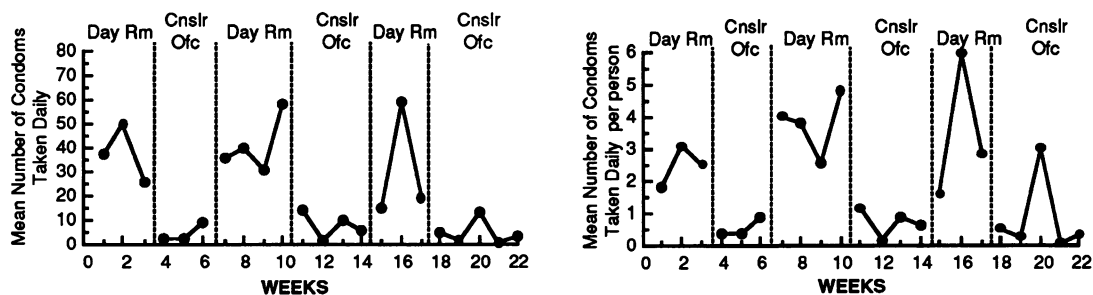
In the counselors' offices, one condom dispenser was mounted just inside the door to each of four offices. Fifty condoms of the same type as those provided in the day room were in each of the four identical dispensers.

The study was conducted over a 22-week period, changing location six times. Time in each location ranged from 3 to 5 weeks per exposure. The location was changed once dispensers had been in the location at least 3 weeks, and no more than one standard deviation variation was detected in the last three weekly mean numbers of condoms taken. The last location change to the day room was made prematurely in error.

Subject traffic flow in each location was recorded daily by research sign-in sheets and reports of attendance in the day room and by written counselor report in the counselors' offices. Condoms were counted and replenished daily at clinic closing. Accuracy was verified by a recount by the primary observer approximately 90% of the time. The maximum number of condoms available daily was 100 in the day room and 200 in the counselors' offices.

RESULTS AND DISCUSSION: The left panel of the figure shows the mean number of condoms taken during each week. During the first day room condition, a mean number of 37.6 condoms were taken daily. When moved to the counselors' offices, the daily mean decreased to 4.8. This trend reversed on return to the day room ($M = 41.1$). We alternated the dispenser location between the day room and the counselors' offices on three more occasions, and the effect was consistently replicated. Averaging across conditions, 36.6 condoms were taken daily when dispensers were in the day room, compared to only 6.1 from counselors' offices.

Because the increase in condom taking in the day room may have been due solely to an increase in traffic through that area, we also calculated the mean number of condoms taken per person. We divided the total number of condoms taken daily by the number of clients in attendance at the clinic on each day (for the day room condition) or by the number of clients in the counselors' offices (for the counselors' offices condition). The right panel of the figure shows that during conditions in which the dispensers were in the day room, the mean numbers of condoms taken per person were 2.5, 3.8, and 3.5, respectively; the means when the dispensers were in the counselors' offices were 0.5, 0.7, and 0.8, respectively. On average, the number of condoms taken per person present was five times greater in the day room (3.3 vs. 0.7); therefore, increased condom taking was not simply a function of patient traffic.



Finding that considerably more condoms were taken from dispensers placed in the day room than from the counselors' offices is important for two reasons. First, drug abuse treatment facilities often dispense condoms from counselors' offices. These data suggest that other locations should be explored. Second, although as Amass et al. (1993) suggest, a completely private dispenser location such as an individual restroom may increase condom taking, condom taking is not necessarily increased by placing dispensers in clinic areas with lower patient traffic. Mean number of people in the counselors' offices daily was consistently lower than in the day room area (8.1 vs. 12.2), but more condoms were taken from the higher traffic area. Perhaps observation and comments by counselors suppress condom taking or peer approval in the day room area increases it. Further study is needed to determine the behavioral principles that operated in the two dispenser locations.

One limitation of this study is that we measured only condom taking. Although some research suggests that drug abuse patients who take condoms report using them (Calsyn, Meinecke, Saxon, & Stanton, 1992), future research should include measures to verify condom use. Also, because this study examined only one clinic and two dispenser locations, further research is needed to assess generalizations to other clinics. Because it is easy to monitor number of condoms taken, the best recommendation for now may be for clinics to empirically determine ideal dispenser locations for themselves.

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